A quarterly newsletter of the Alabama Department of Conservation and Natural Resources, State Lands Division, Coastal Section and the Mobile Bay National Estuary Program

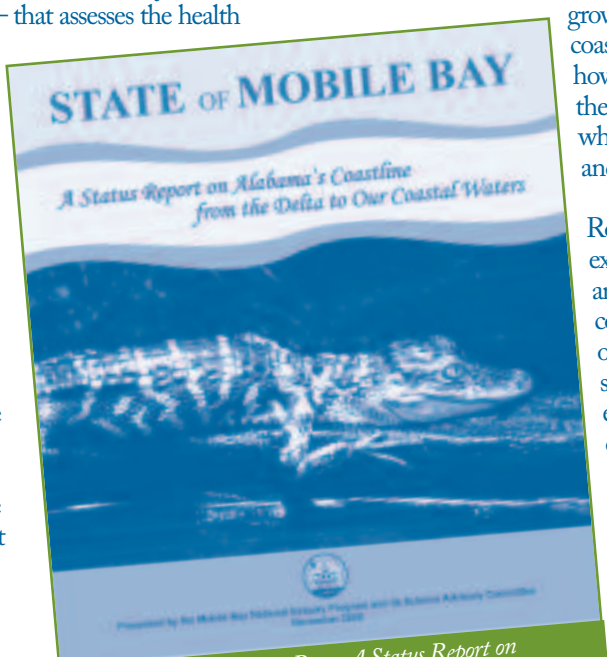
Alabama current connection

Mobile Bay National Estuary Program Releases Its *State of Mobile Bay Report*

By Tom Herder, Mobile Bay National Estuary Program

The Mobile Bay National Estuary Program (MBNEP) released its comprehensive *State of Mobile Bay – A Status Report on Alabama's Coastline from the Delta to Our Coastal Waters* – that assesses the health of the Mobile Bay estuary and surrounding waters in both Baldwin and Mobile Counties. The release of this document, distributed Sunday, December 7 in the *Mobile Press-Register,* was the culmination of four years of work by the MBNEP staff, its Science Advisory Committee, and partner organizations. The report is organized into five sections based upon the priority issue areas of the MBNEP's Comprehensive Conservation Management Plan – Water Quality, Habitat Management, Living Resources, Human Uses, and Education and Public Outreach. Questions were developed within each section to determine whether human development or activities are affecting the health of our estuarine environment. Certain "indicators", measurable characteristics that provide information about the condition or health of the environment, were used to answer those questions.

In 2005, the MBNEP brought together over 70 scientists, professionals, resource managers, and citizens to assess coastal environmental concerns. They identified a set of 51 indicators that would provide the data necessary to assess the health of the Mobile Bay estuary. This *State of Mobile Bay* report provides an analysis of 15 indicators specifically chosen to provide insights into environmental changes that have occurred in the past five to ten years. These analyses shed light on how community growth has impacted coastal Alabama and how we have altered the coastal environment where we live, work, and play.



The State of Mobile Bay – A Status Report on Alabama's Coastline was distributed with the Mobile Press-Register on Sunday, December 7.

Interim Director Roberta Swann is excited about this report and hopeful that the coastal community of Alabama will see that, overall, the environmental health of coastal Alabama remains reasonably strong. "Hopefully we'll recognize the need to preserve and restore our coastal environment for future generations," said Ms. Swann. "This report will provide our Science Advisory Committee with a baseline for developing a coordinated monitoring system to track changes – positive or negative – throughout the coastal environment for years to come."

The Report can be accessed on-line at http://www.mobilebaynep.com/site/news_pubs/Publications/Indicator_Report-Final.pdf. Copies are also available through the MBNEP office at 251-431-6409.

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Currently Inside

Coastal Corner

By Kelly Brinkman, ADCNR, State Lands Division, Coastal Section

Alabama Dolphin Tour Operators Get SMART

In an effort to protect and conserve Alabama's bottlenose dolphin population, members of the Alabama dolphin tour industry have volunteered to become "Dolphin SMART." Dolphin SMART is a voluntary recognition and education program designed to educate tour operators about the importance of sustainable dolphin viewing practices as well as responsible advertising. Dolphin SMART's goal for participants to educate their customers about using responsible practices to view wild dolphins.

In response to local tour operators' requests for an Alabama Dolphin SMART program, the Alabama Department of Conservation and Natural Resources (ADCNR) State Lands Division, Coastal Section committed to implementing the program locally. ADCNR has partnered locally with Mississippi-Alabama Sea Grant Consortium and the Alabama Gulf Coast Convention and Visitors Bureau to offer the program to Alabama operators. The first training session for operators was held on October 6, 2008, with eight operators in attendance. In order to be recognized as Dolphin SMART, operators must complete a four-hour training workshop as well as demonstrate that their business meets program requirements during an evaluation process. Once recognized, participants receive vessel flags and decals with current year Dolphin SMART logos and various educational outreach materials. Recognized participants also receive their own press release and a link to their business website on the Dolphin SMART site (www.dolphinsmart.org). LA Watersports of Orange Beach was the first operator to be recognized in Alabama.

The Dolphin SMART program was created in 2007 in the Florida Keys. The program was developed by NOAA's National Marine Fisheries Service, the Florida Keys National Marine Sanctuary, the Whale and Dolphin Conservation Society, and the Florida Department of Environmental Protection. The foundation of the program's goals are described by the SMART acronym:

Stay at least 50 yards from dolphins
Move away cautiously if dolphins show signs of disturbance
Always put your engine in neutral when dolphins are near
Refrain from feeding, touching, or swimming with wild dolphins
Teach others to be Dolphin SMART

For more information on the Dolphin SMART program, please visit the website at www.dolphinsmart.org, or contact the Alabama coordinator, Kelly Brinkman, at (251) 621-1216. To learn more about ADCNR and all of its outdoor programs, visit www.outdooralabama.com.

> *The foundation of the program's goals are described by the* **SMART** *acronym:*
>
> ***S**tay at least 30 years from dolphins*
> ***M**ove away cautiously if dolphins show signs of disturbance*
> ***A**lways put your engine in neutral when dolphins are near*
> ***R**efrain from feeding, touching, or swimming with wild dolphins*
> ***T**each others to be Dolphin* **SMART**

Bottlenosed dolphins playing in the surf. Photo by Teresa Monique Earley.

Estuary Reflections

Roberta Arena Swann, Interim Director, Mobile Bay National Estuary Program

Can Investing in Nature Be a New Form of Economic Development for Alabama's Coast?

Under the veil of a deep national economic recession, the year 2009 brings with it a new president, continued growth along Alabama's coast, and a host of new residents that will create demand for new houses, roads, schools, and commerce. According to the recently published State of Mobile Bay report, by 2025, the combined population of Baldwin and Mobile Counties will exceed 690,000, representing a 76.9 percent increase for Baldwin County and a 10.9 percent increase for Mobile County. As this growth occurs the looming unknown is how our coastal resources, including our land and water, will be used and altered. The current pressure on our natural ecosystems will grow even greater in the coming years, with a weak and wholly inadequate resource base available for conservation and protection. If we are to continue to maintain high standards for water quality, sustain living resource populations, and conserve vital lands that serve as habitat for wildlife and our fisheries, we will need to engage the business community in developing a new set of incentives for business to encourage practices and investment that support biodiversity.

In his book, *Investing in Nature*, William J. Ginn, discusses a host of new approaches for using private capital, entrepreneurship, and business to affect environmental sustainability.

"Communities are organized around economic systems and we can't defeat human nature. We are a species that thrives by trading and thereby sharing goods and services – it is this collaboration for survival that distinguishes us from other species. Our future will be determined by whether we can find ways to use these skills to enhance the quality of life and the relationships between people and the natural systems of earth. The other choice is for our era to be recorded as the last feeding frenzy over the dwindling of the fossil fuel age. Commerce, properly incentivized and structured, is perhaps our best hope for a tool powerful enough to create and sustain communities in a new harmony with the rest of the biodiversity of this planet."

Mr. Ginn provides case studies of conservation investment banking (using capital to obtain conservation results while meeting business needs); the creation of new environmental markets (including carbon credits and natural resource based "banks" such as grass banks, forest banks, water banks, etc; and financial incentives for conservation including grants and payments linked to conservation management. Quoting E.O. Wilson, "The juggernaut of technology-based capitalism will not be stopped, but its direction can be changed," *Investing in Nature* provides food for thought about changing the direction of conservation and business in ways that can save our natural capital – land, water, biodiversity – while honoring the energy, creativity and power of both.

Recently the Mobile Bay National Estuary Program (MBNEP) joined in a partnership with The Nature Conservancy (TNC) and NOAA Fisheries' Office of Habitat Conservation's Cooperative Habitat Protection Partnerships (CHPPs) in an initiative to better identify critical coastal and marine fish habitat for conservation planning. The project brings together the local knowledge and expertise of more than sixty state and local entities through the MBNEP's Coastal Habitats Coordinating Team with the geospatial, eco-regional, and technical expertise of TNC and NOAA Fisheries and Coastal Services Center at the national level.

The project uses *Conserving Alabama's Coastal Habitats: Acquisition and Restoration* Priorities of Mobile and Baldwin Counties (2006) as a starting point for creating an updated "atlas" of critical habitats in need of conservation. The original publication's static maps are being revised to incorporate additional habitat and land use data, information on habitat stressors such as climate change and sea level rise, and consideration of a range protection and conservation strategies. This project will culminate in the production of an interactive, web-based geographic information system resource of priority habitats and their locations throughout Mobile and Baldwin County to guide local resource managers and community leaders in developing a strategy and an array of incentives for encouraging long-term habitat protection actions by both public and private sectors.

Habitat conservation, protection, and restoration are very much community concerns in coastal Alabama. The goal of the MBNEP, TNC, and NOAA CHPP partnership is to leverage tools, resources, and expertise of entities working across both private and public sectors to effect environmental protection and conservation. Such partnerships – motivated by local needs and grounded in holistic assessments of the ecological value of protected lands at local, regional, and national scales – serve as an important step in ecosystem based approaches to coastal resource management and help communities in better utilizing and targeting existing capabilities, resources, and funding for achieving habitat goals.

In the words of Minoru Mori, a Japanese property development visionary, "The world has entered a new era, evolving from an industrial into a knowledge-based society, and into a society that wants to live in harmony with nature." In promoting the wise stewardship of the water quality and living resources of Coastal Alabama's estuarine environment, it is incumbent upon the MBNEP to work with community leaders to create ways of achieving economic and environmental progress simultaneously. Identifying what needs to be protected is the first step. Establishing a community-wide commitment to developing programs and incentives that can meet both business and ecosystem based objectives is the second. The new year brings many unknowns and yet much hope. It is my hope that in this new year, MBNEP and its many partners can make this happen.

News from the Wolf Bay Watershed Watch

Participants in the 2008 Riviera Utilities-Wolf Bay Watershed Watch Junior Fishing Tournament pose for a group photograph.

By Stan Mahoney, Executive Director, Wolf Bay Watershed Watch

2008 Riviera Utilities-Wolf Bay Watershed Watch Junior Fishing Tournament Report

Over 120 children, ages three through 16, participated in this year's Riviera Utilities - Wolf Bay Watershed Watch Junior Fishing Tournament at the Wolf Bay Lodge on Saturday, November 15. Though somewhat windy, young anglers had a great day catching fish and enjoying Wolf Bay. Many won door prizes, which included rods and reels, a cast net, and even a kayak with seat and paddle! Additionally, all participants won medals and trophies presented to skilled anglers in a number of fish categories. As a new addition, the "Skipper J" dolphin cruise boat, owned and operated by J. and Sherrie Reas of Miflin, embarked 20 children from the Foley Boys and Girls Club for a free morning of fishing in local waters.

Water Quality Leadership in Action

Liz Langston definitely leads by example! As chairwoman of our Water Quality effort and a water quality monitor herself, Liz has logged in over 10 years of service and an untold number of samples. Without her dedicated service, flexibility, and commitment to Wolf Bay, our "Outstanding Alabama Water" designation would never have happened. Liz continues to monitor and train new volunteers in Alabama Water Watch (AWW) methodology and has also added and new a valuable dimension to her efforts. She is now conducting a thus far-successful evaluation of the YSI-556 automated multiparameter instrument we obtained with a grant from the Mobile Bay National Estuary Program and has logged-in close to 100 hrs with this equipment. In the near future, we will be receiving two more YSI 556s – one through a MBNEP mini-grant and the other with WBWW funds, and Liz will also be leading this training effort. To date she has begun instruction with seven current water quality monitors (prerequisite AWW training and experience required) and will be conducting more classes in the future.

Construction of Port Authority's Arlington Park is Underway

By Tom Herder, Mobile Bay National Estuary Program

Wetlands construction is underway at the Alabama State Port Authority's Arlington Park project. Located north of and adjacent to the EADS/Airbus building, the 50-acre park is rapidly taking shape. Long reach excavators and small boats are working busily on the waterfront inside yellow turbidity curtains, removing *Phragmites*, grading, and excavating tidal creeks. When this phase is completed, next steps will include disposal of the remains of the old tanker farm that formerly occupied the property; grading; marsh and landscape planting; and construction of sidewalks, gazebos, a nature walk/fishing pier, and a canoe/kayak launch.

This $8.3 million project will address two goals of the ASPA: increased public access to the western shore of the Bay and wetlands mitigation. The park will be only the fourth public access point on the western shore, along with Riverside Park downtown, McNally Park near Dog River, and the County's Bayfront Park north of Cedar Point. Purchased from the Mobile Airport Authority for $1.3 million, another $2 million will be used to develop the upland 20 acres of the site. The Port Authority will spend $5 million constructing a productive wetlands area to mitigate the effects of the Choctaw Point Project that includes the new Mobile Container Terminal.

Port Authority Director and CEO James Lyons hopes that the park will become a popular recreation spot for people working nearby at Brookley or other Mobile area residents. He envisions the park as "a place to picnic and fish on a sunny afternoon or to enjoy a brown bag lunch." The Park could enhance efforts of the Broad Street Renewal group and provide a "nice dressing on the front door" of Brookley. Ferdinand Williams, Project Manager for Spectrum and Associates who designed the park, hopes to capitalize on the educational value of the wetlands, saying, "We hope as the park develops, a Scout troop or environmental groups will (use it)as a means to educate the public on wet lands…disappearing or declining in quality throughout the US." The constructed wetlands will enhance primary production, create fish and invertebrate nursery and feeding habitats, create wildlife feeding and nesting habitats, and improve water quality and sediment retention.

Park facilities will include walking trails, restrooms, picnic areas, and a pier from which visitors can fish or watch birds, wildlife, sunrises, or ships coming in and out of the Port of Mobile. The WAVE Transit System has agreed to include the park on its route with a covered bus shelter and an automated ticketing machine. Arlington Park is slated to open in the first half of 2009.

An artist's rendering of the 50-acre Arlington Park presently being developed north and east of Brookley Field by the Alabama State Port Authority.

Mobile Manatee Sighting Network Update

By Dr. Ruth Carmichael, Dauphin Island Sea Lab

In the Summer 2008 edition of *Current Connection*, we reported on the Mobile Manatee Sighting Network (MMSN) established by researchers at the Dauphin Island Sea Lab (DISL), in collaboration with Wildlife Trust in Florida. This Network was established to receive and track manatee sightings in Alabama waters to determine where manatees live and what they eat while visiting local waters and to share these data with other researchers, resource managers, and the public. DISL professor Dr. Ruth Carmichael and her collaborators hope this data will increase awareness of manatees in the region, provide public education, and guide local conservation and management decisions. The MMSN successfully processed 104 sightings in 2007 and 105 in 2008, compared to only 156 sightings recorded for the state over the previous 20-year period.

Several unexpected manatee sightings in late 2008 and early 2009 kept the MMSN busy from Thanksgiving through the New Year. Three manatees were spotted outside of the regular sighting season (April-November), when waters are colder and animals are in danger from cold stress. One manatee was sighted in the Jourdan River in Mississippi in mid-November, and its status remains unknown. Another was sighted in central Mobile Bay in early December. A third was spotted in the Mobile-Tensaw Delta in Satsuma, Alabama in early January. Unfortunately, the animal seen in central Mobile Bay succumbed to cold stress before it could be relocated. Valuable tissue samples, photographs, and other data were recovered from this animal, however, increasing our knowledge of manatees in Alabama waters. Currently, efforts are underway to locate and assess the condition of the Satsuma manatee, which has been unofficially adopted by the generous DJs at 92 ZEW. We hope that attention from local and regional media will maintain public interest and assist MMSN in finding this animal. The network's biggest hurdle is prompting immediate response from citizens who spot animals. The sooner we receive sighting reports, the sooner we are able to respond and the better data we are able to collect about the animal, its behavior and habitat.

Mother manatee looking over her calf. Photo by Ruth Carmichael .

MMSN efforts have already yielded positive results. Photographs provided to U.S. Geological Survey (USGS) Sirenia Project by MMSN resulted in the positive identification of one Alabama animal. The manatee, which had distinct tail mutilations, was photographed in the Dog River on September 2, 2007. According to USGS scientist Cathy Beck, she "is an old, very well known manatee from the Crystal River population - CR123, aka 'Ellie.' Ellie was first documented (at Crystal River) in Dec 1979! After her Alabama visit, she was seen back in Crystal River in December 2007, and has been seen this winter as well." This week, researchers in Florida fitted Ellie with a belt and tag so that she can be tracked if she returns to Alabama waters.

Dr. George Crozier Re-appointed as Executive Director of the Dauphin Island Sea Lab

By Lisa Young, Dauphin Island Sea Lab

At an open conference call of the Dauphin Island Sea Lab's Board of Directors on October 29, Dr. George F. Crozier was appointed Executive Director of the Dauphin Island Sea Lab, with a two-year minimal contract. The position of Executive Director was left vacant after the October 12th death of Dr. L. Scott Quackenbush, who had assumed the Directorship in July 2008.

Dr. George Crozier, Dauphin Island Sea Lab Director from 1979 through 2007, returns for a two-year stint at the position after the death of new Director Dr. Scott Quakenbush.

Dr. Crozier had retired from the Sea Lab in December 2007, after having served as Executive Director for 30 years.

"The Board of Directors of the Dauphin Island Sea Lab is pleased that Dr. George Crozier once again is willing to lend his expertise and leadership to the Sea Lab," stated University of South Alabama President and DISL Board Chair V. Gordon Moulton.

"He has a unique perspective on the mission of the Sea Lab as it relates to research and education associated with our vital marine resources."

"We are delighted to have him back with us," President Moulton said.

Dr. Crozier stated, "We are saddened by the loss of Dr. Scott Quackenbush; his family's welfare is our priority right now."

"This is not an opportunity I could have anticipated, or wanted," he continued. "But I understand the need to keep the operations and programs of the Sea Lab moving forward as smoothly as possible."

"The mission of the Lab in its role as educator and steward of our natural resources is crucial, and I feel honored by the Board to have been chosen to help increase our knowledge of our coast as we progress into the 21st century."

Among the projects Dr. Crozier will helm is the Richard C. Shelby Center for Ecosystem-based Fisheries Management, the only National Marine Fisheries Service outfit in Alabama. The Center is scheduled to open in mid-2009.

Alabama current connection

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Editor:
Tom Herder, *Mobile Bay NEP*

Alabama Current Connection welcomes comments and suggestions from its readers. If you have recommendations for future articles or would like to subscribe, please contact:

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The editorial staff reserves the right to edit submissions for content and grammar.

Current events

February

Saturday, February 7
What: **Tree Planting at Village Point Park Preserve**
Where: Parking area of the Village Point Park Preserve in Daphne, 1.6 mi S. of I-10 off Highway 98,
the one half mile right off Main Street
Contact: Anna Keene at the Alabama Coastal Foundation at 251-990-6602 or email akeene@joinacf.org

Monday, Feb. 9 & Tuesday, Feb. 10
What: **Baldwin County Water Festival** ***(Volunteer are needed!)***
Where: Daphne United Methodist Church
Contact: Mike Shelton at 251-928-9792 or email michael.shelton@dcnr.alabama.gov

March

Friday, March 6, 8:30 a.m. - 4:45 p.m.
What: **AL Cooperative Extension System's Trees and Construction: Getting to the Root of the Problem** - Review the importance of trees in urban landscape, understand their structure and biology, learn about the process of designing around trees, & learn about techniques, materials & tools for tree preservation.
Where: Fairhope Public Library,
501 Fairhope Avenue, Fairhope
Contact: Beau Brodbeck at ACES at 251-937-7176 or email brodbam@auburn.edu

April

Saturday, April 18
What: **Discovery Day**
Where: Dauphin Island Sea Lab
Contact: Lori Angelo at the Dauphin Island Sea Lab at 251-861-7507 or email langelo@disl.org

Tuesday, April 28, 9 a.m. - 5 p.m.
What: **Coastal Kids' Quiz**
Where: Daphne United Methodist Church
Contact: Anna Keene at the Alabama Coastal Foundation at 251-990-6602 or email akeene@joinacf.org

Alabama current connection

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Marine Environmental Science Consortium
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Volunteers Grow Thousands of Oysters for Restoration

By Melissa Schneider, Mississippi-Alabama Sea Grant Consortium

Mobile Bay Oyster Gardening Program volunteers in Alabama this year grew more than 59,000 oysters. The oysters were planted on restoration sites in Mobile Bay, where they will help filter water and provide habitat for a variety of estuarine organisms.

While oyster growth in the 2008 program was relatively slow, survival was better than anticipated, thanks to the volunteers who cleaned algae, mud and other fouling from the cages each week. Program participants had a better harvest than usual, according to Extension Specialist P. J. Waters of Mississippi-Alabama Sea Grant Consortium and the Alabama Cooperative Extension System, who, along with Mobile Bay NEP's Sara Shields, works with program volunteers. "Thirty-four volunteers each grew an average of more than 1,700 oysters," he said. Volunteers usually grow around 1,000 oysters during the season, which runs from June/July to the end of November, Waters said.

Oyster gardeners grow oysters off wharves in locations classified as "conditionally open" for shellfish harvesting. The volunteers receive juvenile oysters (also known as spat) set on whole shell from the Auburn University Shellfish Laboratory at the Dauphin Island Sea Lab. They place the oyster shells with spat in special cages at the beginning of the summer and hang them from piers in the middle of the water column. Oysters are kept off the bottom to help water flow through the cage and bring needed food while protecting them from predators, such as blue crabs and oyster drills. Plans are being developed to try to extend the growing season for gardeners, where possible, to increase the size of the oysters ultimately planted on the restoration reef sites, Waters said.

The Mississippi-Alabama Sea Grant Consortium, Mobile Bay National Estuary Program, Alabama Cooperative Extension System and Auburn University Shellfish Lab sponsor the Oyster Gardening Program. For more information, contact P. J. Waters at the Auburn University Marine Extension and Reseach Center at 251-438-5690.